THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHEE-CHIU J. WONG and WALTER J. SANBORN

Appeal No. 1999-0974
Application No. 08/477,963[1]

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge, STAAB and McQUADE, Administrative Patent Judges.

McCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

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[1] Application for patent filed June 7, 1995. According to appellants, this application is a continuation-in-part of Application No. 08/196,741 filed February 15, 1994, now abandoned; which is a continuation-in-part of Application No. 07/722,734 filed June 27, 1991, now abandoned.

This is a decision on an appeal from the examiner's final rejection of claims 4 through 7 and 11. No other claims are pending in the application.

Appellants' invention relates to a belt drive system having a belt (12) trained around drive and driven pulleys (14, 16) and a pivotally mounted idler arm (22) biasing an idler (20) into engagement with an unsupported span of the belt to tension the belt. According to the description on page 4 of appellants' specification, the idler arm is a single piece tuned damping element "for controlling vibration/noise of a belt system . . ."

A copy of the independent claims on appeal, namely claims 4 and 11, is appended to this decision.

Appealed claims 4 through 7 and 11 stand rejected under 35 U.S.C. § 112, first paragraph, as being based on a specification which fails to provide an enabling disclosure. In particular, the examiner states on page 4 of the answer that "[t]he specification lacks an enabling disclosure of providing a tuned damping element . . ." (emphasis in the original). There are no other rejections of the appealed claims.

In support of his rejection the examiner states on page 5 of the answer:

> However, it is not clear from this paragraph and specification how the length, width, thickness, mass, elastic modulus or/and damping coefficient are chosen to make a tuned dampening idler arm of the claimed invention. The specification contains no disclosure of any specific configuration or any guidelines for structuring an idler arm capable of "tuned damping" or capable of attenuate [sic] or dissipate [sic] vibratory energy created by the belt system as disclosed or claimed. It is not clear how one can distinguish a tuned damping idler arm from one that is not tuned. In other words, the disclosure fails to sufficiently disclose the claimed invention to enable those skilled in the art to make and use the claimed invention without undue experimentation. (Emphasis in the original).

At the outset, we note that while claim 4 recites that the idler-supporting element is a "tuned damping element," claim 11 is not limited to an idler-support arm or element that is "tuned." Because of this difference in scope between the subject matter of claim 4 and the subject matter of claim 11 the rejection of claim 4 must be treated separately from claim 11.

For reasons stated infra in our new ground of rejection pursuant to 37 CFR § 1.196(b), we are of the opinion that because of the recitation in claim 4 that the damping element

is "tuned," this claim and claims 5 through 7, by virtue of their dependency on claim 4, do not set and circumscribe the subject matter sought to be patented with a reasonable degree of precision and particularity as required under the second paragraph of § 112. Because any analysis of a claim's compliance with the first paragraph of § 112 necessarily involves, as an initial step, a determination of what constitutes the claimed invention, it follows that the failure of claims 4 through 7 to set forth the subject matter sought to be patented with a reasonable degree of precision precludes us from determining whether these claims comply with the requirements in the first paragraph of § 112. See In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971).

Accordingly, we are constrained reverse the examiner's rejection of claims 4 through 7 under the first paragraph of § 112. Note In re Steele, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962).

With regard to claim 11, the issue is whether the claimed subject matter satisfies the requirements in the first paragraph of § 112. See Moore, 439 F.2d at 1235, 169 USPQ at 238. Since this claim is not limited to a tuned idler arm, an

enabling disclosure of a tuned idler arm is not required to establish compliance with the first paragraph of § 112. Accordingly, we also must reverse the examiner's rejection of claim 11 under the first paragraph of § 112.

Under the provisions of 37 CFR § 1.196(b), the following new ground of rejection is entered against claims 4 through 7:

Claims 4 through 7 are rejected under 35 U.S.C. § 112 ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellants regard as their invention. Appellants' underlying specification does not set forth sufficient guidelines or standards that would enable one of ordinary skill in the art to distinguish or differentiate a "tuned damping element" as recited in claim 4 from an untuned damping element. The fact that appellants' tuned damping element may reduce noise does not distinguish it from an untuned damping element inasmuch as appellants concede that the prior art idler systems mentioned on page 4 of the specification also reduce noise at least to some degree.

There is nothing in appellants' specification that establishes with a reasonable degree of precision the extent to which the idler-supporting damping arm must reduce or

attenuate noise in order to be regarded as being a tuned damping arm as opposed to an untuned damping arm. Appellants' definition of the term "tuned damping," namely "a method and apparatus for controlling vibration/noise of a belt system" as set forth on page 4 of the specification is too broad and too vague to rectify this deficiency. In fact, this definition is so broad that even prior art idler-support damping arms would be regarded as tuned damping arms. Although an inventor is free to define specific terms used in a claim to describe his or her invention, that must be done with reasonable clarity, deliberateness and precision. In re Paulsen, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). The definition in appellants' specification does not meet the Paulsen requirements.

In the paragraph bridging pages 4 and 5 of the specification, appellants state that "[t]une [sic, tuned] damping is achieved by first predetermining the magnitude and the dominant frequencies of the noise and vibrations coming from the belt system." Yet, the specification does not go on to state how this data is utilized to tune the idler-support arm. Instead, the specification, without referring to the

magnitude and dominant frequencies of the noise, merely goes on to state that "[t]hen the arm control mechanism is designed by experiment for optimum stiffness and damping." There is, however, no explanation of what is meant by "optimum stiffness and damping" to enable one of ordinary skill in the art to determine when "optimum stiffness and damping" is achieved by evidently experimenting with a wide variety of factors such as the arm's length, width and thickness, system mass, selection of materials, elastic modulus and damping coefficients.

We are not unmindful of the citation of the chapter on tuned dampers in the text cited on page 5 of the specification. However, the discussion of tuned damping devices in this chapter is so generalized that it would not apprise one skilled in the art to which appellants' invention pertains to determine when the tuned characteristic of the damping arm is achieved through the experimentation described on page 5 of the specification.

In view of the foregoing, claims 4 through 7 do not set out and circumscribe a particular area with a reasonable degree of precision and particularity as required in Moore, 439 F.2d at 1235, 169 USPQ at 238.

The examiner's decision rejecting claims 4 through 7 and 11 is reversed, and a new ground of rejection has been entered against claims 4 through 7 pursuant to 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR
§ 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

REVERSED, 1.196(b)

HARRISON E. McCANDLISH Senior Administrative Patent Judge	)
LAWRENCE J. STAAB Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JOHN P. McQUADE Administrative Patent Judge	)

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APPENDIX

4. A machine including a belt drive sytem having at least one belt surrounding drive and driven rolls with an unsupported span of belt therebetween, comprising:

an idler;

a single piece, homogeneous, tuned damping element adapted to support and bias said idler into the unsupported span of the belt between the drive roll and driven roll in order to tension the belt and attenuate vibratory energy created by the belt system; and

stop means for limiting pivotal movement of said damping element and biasing said damping element towards said belt.

11. A machine including a belt drive sytem having at least one belt surrounding drive and driven rolls with an unsupported span of the belt therebetween, comprising:

a single piece, homogeneous, Nyon idler arm centrally supporting and biasing said idler into the belt between the drive roll and driven roll in order to tension the belt and attenuate vibratory energy created by the belt system; and

stop means for limiting pivotal movement of said idler arm and biasing said idler arm towards said belt.